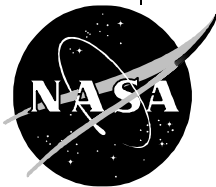


***NASA Personnel Payroll System
(NPPS)/Uniform Universal Person
Identification Code (UUPIC)
Interface Definition Agreement***

February 6, 2003



National Aeronautics and
Space Administration

Marshall Space Flight Center
Huntsville, Alabama

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1.0 Introduction

This Interface Definition Agreement (IDA) establishes the specifications for an interface between the NASA Personnel Payroll System (NPPS) and the NASA Uniform Universal Person Identification Code System (hereafter referred to as "UUPIC"). This interface supports the Integrated Financial Management Program (hereafter referred to as "IFMP") by providing an employee's Uniform Universal Person Identification Code and employee information as specified in Appendix A.

2.0 Purpose

The purpose of this interface agreement is to describe the dialog and data transferred between NPPS and UUPIC. This agreement also defines the specific technical requirements for integration, data element definition, functional execution, and error handling routines.

3.0 Roles and Responsibilities

This section outlines at a high level the responsibilities that the Information Services Department (ISD) Sustaining Engineering Support for Agencywide Administrative Systems (SESAAS) Team, the UUPIC Support Team, and the NPPS Operational Support Team are accountable for in developing and maintaining this interface. These roles and responsibilities include:

SESAAS will be responsible for:

- The mainframe software application and documentation required to generate the NPPS to UUPIC interface flat file (See Appendix A for file format)
- The mainframe software application and documentation required to read the UUPIC data and load the UUPIC into NPPS
- Physical configuration management control over this IDA.

UUPIC Support will be responsible for:

- Software and documentation required to extract the employee information identified in Appendix A, based on the employee SSN and verification data supplied on the interface file, and provide the UUPIC number.
- UUPIC Operational Support.

NPPS Operational Support will be responsible for:

- Coordinating and executing the daily job streams necessary to export and import NPPS/UUPIC interface files.

The Organizations listed above will approve this IDA in its final form, and these Teams will be available to answer questions and resolve interface issues concerning this IDA. All changes to the final form of this IDA will be documented in the Document Change Record.

4.0 Interface Details

This section outlines the scenarios that occur as a result of the NPPS and UUPIC interfaces and the overall mechanisms, error handling, file format, and exchange model.

4.1 Scenario NPPS to UUPIC

NPPS will generate, for each active NPPS employee (duty status not equal 'Z') who has a blank UUPIC, an employee record on the interface file containing the employee's verification data. The file currently being used for this is the WebTADS Employee Record (EMPREC) file. This may change at a future date if the badging system becomes active.

4.2 Scenario UUPIC to NPPS

The UUPIC System will read each employee record on the NPPS interface file and, using the employee's verification data, locate and extract the requested employee information. UUPIC will store the extracted information in the specified fields within the employee record. If the verification data match is not successful, or if the sought after UUPIC data is not present for an employee, then the UUPIC field will remain blank. The returning file will only contain the information necessary for NPPS to update the UUPIC within the NPPS files (see Appendix B).

4.3 Scenario Load of UUPIC Data to NPPS

The UUPIC value returned to the NPPS mainframe will be loaded to the NPPS Personnel Master File.

Figure 1 depicts the data exchanges in the NPPS/UUPIC interface process.

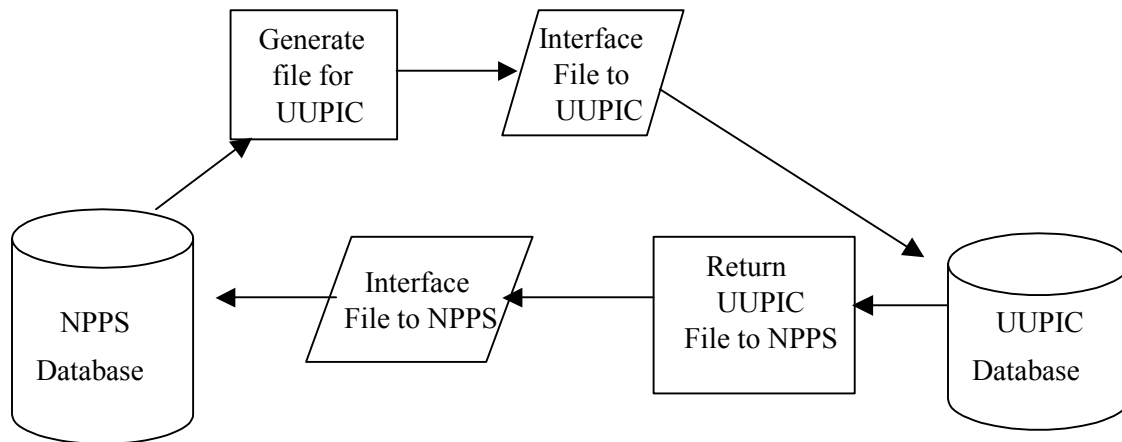


Figure 1 **The Daily NPPS / UUPIC Interface**

4.4 Mechanism

NPPS is a mainframe application that was written using the NATURAL programming language. This application runs against the ADABAS database management system (DBMS). Conversely, UUPIC is a server application written in Visual Basic with SQL stored procedures and runs against the UUPIC System.

The mechanism for completing the interface requirements will be as follows:

- NPPS will generate the NPPS to UUPIC interface file, in a batch mode, on a daily basis. All centers' verification data will be extracted at one time.
- An automated daily UUPIC job stream will read the NPPS interface file and populate the UUPIC value in the records.
- NPPS will retrieve the UUPIC to NPPS interface file with the appended UUPIC and store the UUPIC in a NPPS file.

4.5 Error Handling

The NPPS Operational Support Team and the UUPIC Support Group will be responsible for resolving any data exchange errors or exceptions. Errors involving the data contents of the interface files will be handled with cooperation between SESAAS and the UUPIC Support Group.

4.6 File Format

The NPPS/UUPIC interface file and record format are defined in Appendix A and Appendix B. General formatting standards or criteria used for this interface file will be as follows:

- A column-oriented, fixed record length, ASCII character flat file
- Character fields will be left justified and space filled to the right
- Unpopulated UUPIC data items will be space filled
- The ASCII carriage return will be used to mark the end of a record.

4.7 Exchange Model

The *exchange model* is defined as the set of data exchanged between applications, the business rule directing the behavior of the data, and the metadata that describes the interface touch points. The exchange model documents, for each interface touch point, the source (originating) application and the target (data recipient) application. The metadata provides information describing the functional and technical areas of the interface. The specifics of the exchange model are included in Appendix C.

Appendix A – NPPS to UUPIC

NPPS Selection Criteria: The UUPIC system will be sent data that is currently being created for the Web-based Time and Attendance Distribution System (WebTADS) (minus employees who already have a UUPIC in NPPS) until the badging system is active. This is the Employee Record (EMPREC) from WebTADS. The most current copy of this will always be found in WebTADS NPPS IDA.

Payroll Employee Record				
		Interfaced field		
Num	Length	Column	NPPS-Source	Remarks
1	1	1	Record identifier	[Value = '1' for employee data]
2	4	2-5	PAY-CENTER-CODE	
3	2	6-7	PAY-PAYBLOCK	[default = '09']
4	9	8-16	PAY-SSN	
5	22	17-38	PAY-NAME-LAST	
6	12	39-50	PAY-NAME-FIRST	
7	1	51	PAY-NAME-MI	
8	3	52-54	PAY-NAME-SUFFIX	
9	6	55-60	PAY-EMP-NUMBER	[used by KSC to report Labor]
10	8	61-68	PAY-TERM-DATE	[zeroes if active]
11	1	69	PAY-FLSA-STATUS	[Value 'E' or 'N', default = "E"]
12	7	70-76	Computed CT-BALANCE	
13	7	77-83	Computed AL-BALANCE	
14	7	84-90	Computed SL-BALANCE	
15	7	91-97	Computed RL-BALANCE	
16	7	98-104	Computed CR-BALANCE	
17	7	105-111	Computed RCT-BALANCE	
18	7	112-118	Computed TOA-BALANCE	
19	5	119-123	PER-DTORGASSIGN	[Org detailed]
20	5	124-128	PER-ORGLOC	[Org located]
21	5	129-133	PER-ORGASSIGN	[Org assigned]
22	2	134-135	PER-GRADE	
23	2	136-137	PER-PAYPLN	[default = 'GS']
24	2	138-139	PER-STEP	
25	1	140	Emp status, "A" = active, "L" = LWOP, "T" = terminating, "Z" = inactive	
26	7	141-147	Computed hourly rate using	EMPL-BASIC-PAY-AMT
27	8	148-155	PAY-EOD-DATE	[date entered duty at center]
28	8	156-163	PAY-BIRTH-DATE	
29	5	164-168	PER-OCCODE	
30	2	169-170	PER-PAYBASIS	(default "PA" if blank)
31	1	171	PER-WORKSCH	(default "F" if blank)
32	1	172	PER-HEAD-AGNCY	(value "Y" or "N")
33	1	173	PAY-HAZARD-RATE-CODE	(Value "Y" or "N")
34	1	174	PER-POSTYPE	(default "6" if blank)
35	1	175	PER-TENURE	(values 2, 3, or 0, otherwise 1)
36	1	176	MER-FLEX-FOR-CR-HR	(value "Y" or "N")
37	1	177	PAY-JOB-SERIES (wage-board = '1')	[NASA CODE BLOCK]
38	1	178	PER-EMPIND (value "Y" or "N")	["Y" = Payroll employee]
39	1	179	PAY-NEW-EMP-CODE (value "Y" or "N")	

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40	2	180-181	PER-PTHOURS (default to "00" if blank)
Num	Length	Column	NPPS-Source Remarks
41	5	182-186	PER-NCC (combines PER-NCC1 and PER-NCC2THRU5
42	6	187-192	EMPL-OVR-TIME-RATE
43	6	193-198	PAY-RATE-HRLY (includes Local Pay)
44	102	199-300	Reserved for future use [blanks]

Appendix B – UUPIC to NPPS Interface

NPPS Selection Criteria: Only active (duty status not equal 'Z') NPPS employees' data for employees who have a blank UUPIC in NPPS will be loaded into the flat file.

Employee Record						
Field NO.	Element Name	Description	Lgth	Col	NPPS File NPPS Field (Format)	COMMENTS
1	SSN	Social Security Number	X(9)	1-9	NPS2-PER-MASTER. PER-SSN	Filled from NPPS
2	Birth Date	Employee's date of birth	X(8)	10-17	NPS2-PER-MASTER. PER-BIRTHDTE	Filled from NPPS YYYYMMDD
3	UUPIC	Uniform Universal Person Identification Code	X(9)	18-26	NPS2-PER-MASTER. UUPIC	Blank from NPPS Filled from UUPIC

Appendix C – Exchange Model

Metadata Property	Description
Business Event (Trigger) The <i>business event</i> is the activity to which the business process must respond. This should include a description of process-mapping number, what the <i>event</i> is, and who initiates it.	Scheduled daily batch interfaces, one input and one output interface each between NPPS and UUPIC. These interfaces do not update the UUPIC database, but will update the NPPS database with the UUPIC value. The purpose for these interfaces is to obtain the UUPIC to be used in other NPPS outgoing interfaces in place of SSN. The daily set of interfaces is triggered by NPPS. UUPIC then responds back with an interface file enhanced with UUPIC data.
Source Application(s) References the application(s) name(s) that initiates the action that occurs between one or more target applications. This action may be a request for information from other applications or may be the initiator of a data exchange with other applications based on the business event.	NPPS script/program
Target Application(s) References the application(s) name(s) that responds to the action requested by the source application(s). This action may be a response to an information request from other applications or may be the recipient of a data exchange from other source applications based on the business event.	UUPIC script/program
Data Attributes References the application(s) name(s) that responds to the action requested by the source application(s). This action may be a response to an information request from other applications or may be the recipient of a data exchange from other source applications based on the business event.	See Appendix A
Data Transformation / Crosswalks Data transformation focuses on the physical structure of the data attributes as they originate from the source application. It must be determined if there is a required crosswalk to handle the act of transforming the data attributes to the physical structure of the receiving data attributes as they reside in the target application(s).	See Appendix A
Interface Category (Internal or external to the software system i.e. ERP, NPPS, MARTS)	External
Interface Description Provide description of the activity that is occurring and requires a touch point with one or more applications. This activity may be a request or response for information or it may denote how the information will be exchanged, such as to publish or subscribe.	An extract of information from NPPS on a daily basis via a scheduled batch job will occur. The extract file will be transmitted to the UUPIC production server for processing. After UUPIC processes the NPPS interface file, the file will be transmitted back to NPPS to update the NPPS database.

NPPS / Uniform Universal Person Identification Code (UUPIC) IDA

Metadata Property	Description
Expected Duration for use of the interface Based on the IFMP schedule for module implementations, a timeframe for the expected duration for use of the interface can be determined.	For the life of NPPS or UUPIC.
Integration Options Type of Interface The <i>type of interface</i> relates to the behavior of the exchanged data. It identifies that when the target application(s) receives the data how it will be used (Create, Read, Update, or Delete).	N/A Create the UUPIC within NPPS.
Data Persistence Persistence refers to how application data is stored, such as database, tape, flat file, etc.	Flat file
Application Programming Language (Processing Technology) Identifies the <i>programming language</i> used to develop the application. Examples include COBOL, FORTRAN, Natural, Visual Basic, etc.	Source: Natural Target: Visual Basic 6.0
Hardware Platform Identifies the hardware platform where the application resides, such as IBM 390, HP9000.	NPPS: <u>IBM 9672 Mainframe</u> UUPIC: <u>SQL Server 2000</u>
Operating System Identifies the operating system that is used on the hardware platform where the application resides, such as UNIX, AS400, etc.	NPPS: <u>IBM OS/390 version 4</u> UUPIC: <u>Windows 2000 ; ISS Web Interface</u>
Communication Protocol Identifies the communication protocol that is used for communication by the hardware platform where the application resides, such as FTP, DNS, SNMP, TCP/IP, Novell NetWare, etc.	SECURE COPY (SCP)
Server Address The specific address for the hardware platform where the application resides.	*****
Velocity Identifies the execution method for the touch point transaction processing, such as, real-time or batch.	Batch
Error Handling / Failure Notification Procedure / Rollback Identifies the approach for error handling, such as <ul style="list-style-type: none"> - If the transaction fails, does it perform a back out of in-process transactions? - Are there forward recovery 	The NPPS/UUPIC error handling details are as follows: <ul style="list-style-type: none"> • Automated or manual notification of error by discovery party. • Appropriate data owners will resolve any exceptions. Restarts will be handled by the NPPS Operational Support Team.

NPPS / Uniform Universal Person Identification Code (UUPIC) IDA

Metadata Property	Description
<p>procedures and what are they?</p> <ul style="list-style-type: none"> – Does the database do a rollback if the transaction fails to complete? <p>How is a restart handled if the transaction fails?</p>	
Modification / Customization needed	N/A
Upgrade Implications on Source or Target	N/A